MPX 423 A

Media Presentation Matrix Switcher

FEATURES

- **Four switchers in one:**
  - 4x2 VGA switcher
  - 4x2 S-video switcher
  - 4x2 composite video switcher
  - 12x2 stereo audio switcher
- **350 MHz (-3 dB) RGB video bandwidth, fully loaded** — Ensures switching and distribution of signals without degradation when one input signal drives both RGB outputs.
- **Single Switcher and Separate Switcher modes** — Single Switcher mode allows one-touch switching. while Separate Switcher allows independent switching to the audio output of any given I/O group.
- **RGB mute** — Allows the user to mute the video outputs, all at once or individually. The image is muted by removing the RGB signals, while leaving the sync signals active, allowing the display to be restored completely without any visible glitch or distortion.
- **Video genlock for composite video and S-video** — The MPX 423 A includes genlock capabilities by locking to the first input of the composite video group, input five, and the first input of the S-video group, input nine. This allows for vertical interval switching and ensures smooth and glitch-free transitions between synchronus sources.
- **DSVP™ - Digital Sync Validation Processing** — Extron's exclusive DSVP verifies active sources by displaying horizontal and vertical scan rate information. This allows the monitoring of input signal status information, as well as the scan rate for the computer signal inputs.
- **Audio input gain and attenuation** — Allows users to set the level of gain or attenuation for each audio input channel, eliminating noticeable differences when switching between sources.
- **Audio output volume control** — Can be set dynamically for each channel through the front panel, IP Link, or serial control, eliminating the need for audio preamplifiers in many system designs.
- **Speed-sensitive volume control** — Adjusting audio volume can be done in 0.5 dB or 2.5 dB increments, depending on how fast the volume adjustment knob is turned. This automatic sensitivity control allows the user to easily fine-tune the audio volume.
- **Audio breakaway** — The MPX 423 A provides the capability to break away an audio signal from its corresponding video signal. Switching can be done via the front panel or RS-232.
- **RS-232 serial control port** — Using serial commands, the MPX 423 A can be controlled and configured via the included Windows-based control software, or integrated into third-party control systems. Extron products use the SIS™ - Simple Instruction Set command protocol, a set of basic ASCII code commands that allow for quick and easy programming. The RS-232 port also makes it easy to install firmware updates.
- **IP Link®; Ethernet monitoring and control** — Specifically engineered to meet the needs of professional A/V environments, IP Link-enabled products offer an integrated Web server with high performance architecture, global compatibility with industry standard Ethernet communication protocols, multi-user support, and a Web-based asset management application specifically designed to work with products that include IP Link technology.
- **Front panel security lockout** — Selectable via the front panel controls, RS-232, and IP Link, this feature locks all input buttons and audio functions, preventing unauthorized tampering or adjustments.
- **1U, full-rack width metal enclosure** — Can be easily mounted into any rack or podium, or under a desk.
- **Internal international power supply** — The autoswitchable, internal power supply provides worldwide power compatibility.

DESCRIPTION

The Extron **MPX 423 A** is a media presentation matrix switcher that merges four independent matrix switchers into a single, compact enclosure: a 4x2 VGA switcher, a 4x2 S-video switcher, a 4x2 composite video switcher, and a 12x2 stereo audio switcher. Compact and cost-effective, the MPX 423 A can be utilized for expanding the input capabilities of a typical LCD or DLP projector, while providing a second set of outputs for local or preview monitoring, or a second presentation system. This integrator-friendly matrix switcher is ideal for a variety of small-scale applications including classrooms, training and conference facilities, and sophisticated home theaters.

When switching the inputs of the MPX 423 A, the user can choose between the Single Switcher mode and Separate Switcher mode. Single Switcher mode turns the MPX 423 A into a single 12 input switcher that routes the signals of the input selected to the output of its group. Outputs of the other groups are muted. In Separate Switcher mode, the MPX 423 A becomes three switchers in one box, enabling independent switching to the output of any given I/O group. The MPX 423 A also offers a 12x2 audio switcher that can access the audio of all three video groups. Balanced and unbalanced audio inputs and outputs are provided on convenient captive screw connectors.

Control of the MPX 423 A is provided via the front panel, RS-232, and/or IP Link. Housed in a 1U, full rack width metal enclosure, the MPX 423 A can be easily mounted into any rack or podium, or under a desk.

MODEL	VERSION DESCRIPTION	PART #
MPX 423 A	Media Presentation	60-683-01

Continued →

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MPX 423 A

SPECIFICATIONS

VIDEO

Routing	(3) 4 x 2 matrix switchers
Gain	Unity
Bandwidth	
RGB	350 MHz (-3 dB)
S-video or composite video	150 MHz (-3 dB)
Crosstalk (RGB signals)	<-50 dB @ 10 MHz, <-30 dB @ 100 MHz
Switching speed	
RGB signals' sync	<5 ms (max.)
RGB, S-video, composite video	100 ms

VIDEO INPUT

Number / Signal type	
RGB/VGA inputs	4 VGA–UXGA RGBHV, RGBS, RGsB, RsGsBs
S-video inputs	4 S-video
Composite video inputs	4 composite video
Connectors	
RGB/VGA inputs	4 female 15-pin HD
S-video inputs	4 female 4-pin mini DIN
Composite video inputs	4 female BNC
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y and B-Y of component video, and for C of S-video
Minimum / Maximum levels	
RGB/VGA inputs	Analog: 0.3 V to 1.5 Vp-p with no offset
S-video inputs	Analog: 0.5 V to 2.0 Vp-p with no offset
Composite video inputs	Analog: 0.5 V to 2.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	15 kHz to 145 kHz
Vertical frequency	30 Hz to 170 Hz
Return loss	
RGB/VGA inputs	<-40 dB @ 5 MHz
S-video inputs	<-30 dB @ 5 MHz
Composite video inputs	<-30 dB @ 5 MHz

VIDEO OUTPUT

Number / Signal type	
RGB/VGA outputs	2 VGA–UXGA RGBHV, RGBS, RGsB, RsGsBs
S-video outputs	2 S-video
Composite video outputs	2 composite video
Connectors	
RGB/VGA outputs	2 female 15-pin HD
S-video outputs	2 female 4-pin mini DIN
Composite video outputs	2 female BNC
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y and B-Y of component video, and for C of S-video
Minimum / Maximum levels	
RGB/VGA outputs	0.3 V to 1.5 Vp-p
S-video outputs	0.4 V to 2.0 Vp-p
Composite video outputs	0.4 V to 2.0 Vp-p
Impedance	75 ohms
Return loss	
RGB/VGA inputs	<-40 dB @ 5 MHz
S-video inputs	<-30 dB @ 5 MHz
Composite video inputs	<-30 dB @ 5 MHz
DC offset	
RGB/VGA outputs	±5 mV with input at 0 offset
S-video outputs	1.5 V with input at 0 offset
Composite video outputs	1.5 V with input at 0 offset
Switching type (S-video and/or composite video)	Vertical interval

SYNC

Input type (RGB/VGA group)	RGBHV, RGBS, RGsB, RsGsBs
Output type (RGB/VGA group)	RGBHV, RGBS, RGsB, RsGsBs (follows input)
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	1.9 V to 5.0 Vp-p
Output level	TTL: 5.0 Vp-p, unterminated
Input impedance	510 ohms
Output impedance	75 ohms
Max. propagation delay	30 ns
Max. Rise / Fall time	4.2 ns
Polarity	Positive or negative (follows input)

AUDIO

Routing	12 x 2 stereo matrix switcher
Gain	Unbalanced output: -6 dB; balanced output 0 dB
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz, 0.3% @ 20 kHz at nominal level
S/N	>90 dB, output 21 dBu, balanced, at maximum output (unweighted)
Crosstalk	<-120 dB @ 1 kHz, fully loaded
Stereo channel separation	>80 dB @ 1 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz
Volume range	-98 dB to 0 dB (volume numbers 0 to 64 in 1.0 dB steps)

NOTE: Full attenuation is volume level 0, -98 dB. The default for output 1 is -15 dB, volume level 50.

AUDIO INPUT

Number / Signal type	12 stereo, balanced/unbalanced
Connectors	(12) 3.5 mm captive screw connectors, 5 pole
Impedance	>12.5k ohms unbalanced, 25k ohms balanced, DC coupled
Nominal level	-10 dBV (316 mVrms)
Maximum level	+20 dBu, (balanced or unbalanced) at 1%THD+N
Input gain adjustment	–18 dB to +24 dB, adjustable per input

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

AUDIO OUTPUT

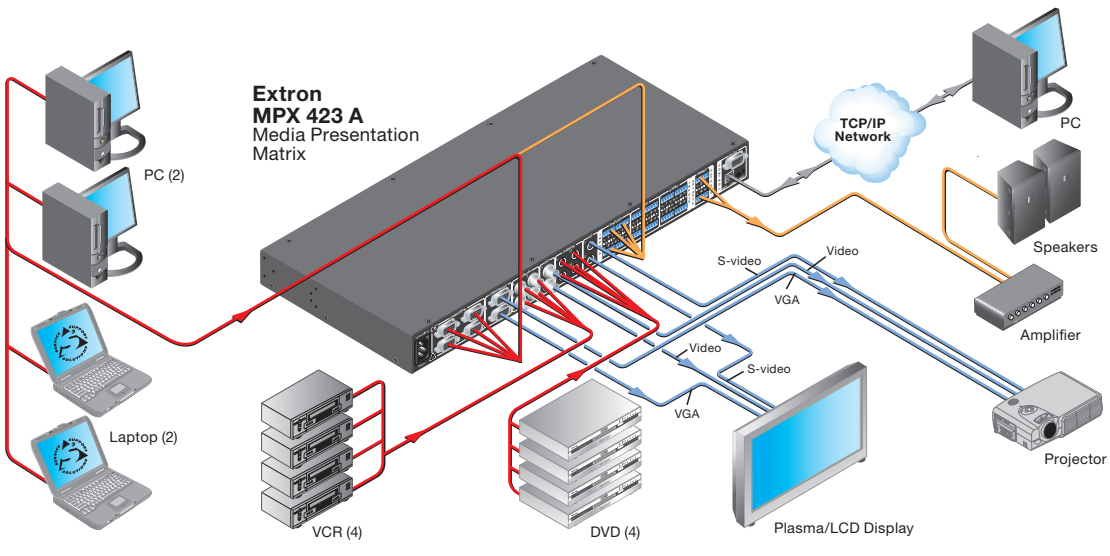
Number / Signal type	2 stereo, balanced/unbalanced
Connectors	(2) 3.5 mm captive screw connectors, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1 dB channel to channel
Maximum level (Hi-Z)	>+20 dBu, balanced or unbalanced at 1% THD+N

CONTROL / REMOTE – SWITCHER

Serial control port	RS-232, 9-pin female D connector
Baud rate and protocol	9600 baud (default), 8 data bits, 1 stop bit, no parity
Ethernet control port	1 RJ-45 female connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, DHCP, ICMP (ping), TCP/IP, Telnet, HTTP
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Netscape® Navigator®, Telnet

GENERAL

Power	100 VAC to 240 VAC, 50/60 Hz, 15 watts, internal, autoswitchable
Rack mount	Yes, with included brackets, part #70-077-03. Also furniture mountable with optional Under-Desk Mounting Kit, part #70-222-01
Enclosure type	Metal
Enclosure dimensions	1.75" H x 17.4" W x 8.5" D (1U high, full rack wide) 4.4 cm H x 44.2 cm W x 21.6 cm D (Depth excludes connectors and knob. Width excludes rack ears.)
Product / Shipping weight	7.0 lbs (3.2 kg) / 10 lbs (5 kg)



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